

Claims

What is claimed is:

1. In an impeller for a rotary food product slicing machine wherein the impeller is generally annular in configuration, is intended to be rotated in a given direction about an axis of rotation within a non-rotating annular drum housing supporting one or more fixed cutting knives located near the periphery of the impeller to convey elongated food products across the one or more knives, the impeller including a circular rear base plate and at least one forward located annular ring, said base plate and said at least one ring having corresponding effective diameters and being axially spaced along the axis of rotation of the impeller, oriented in radial planes intersecting the axis of rotation of the impeller, and having forward and rearward respective facing opposed radial surfaces, and a first plurality of food conveying paddles spanning the radial surfaces of the base plate and said at least one ring, said paddles located in circumferentially spaced, generally radially oriented relationship relative to the rear plate and said at least one ring so that radially outer generally axially extending edges of the paddles are located adjacent the circumferences of the rear base plate and said at least one ring, each paddle having radially inner axially extending edges and each paddle terminating at an end thereof located respectively at a radial surface of the rear base plate and the at least one ring, said paddles each being oriented to extend at an angle relative to a radius of the rear base plate and the at least one ring such that the radially inner axially extending edge of each paddle is located in leading relationship relative to the radially outer axially extending edge of the respective paddle with respect to an intended direction of

rotation of the impeller, the improvement comprising:

the end of each paddle located adjacent the rear base plate being located at least in partially trailing relationship relative to the end of each paddle located adjacent the at least one ring with respect to an intended direction of rotation of the impeller;

whereby elongated food products carried by the impeller during rotation and use thereof are caused to be generally aligned axially along the paddles and urged so that one end of the product is located against the rear base plate.

- 10 2. The improvement in an impeller as claimed in claim 1, said impeller including at least one additional forward ring axially spaced from said at least one forward ring in a direction opposite the direction where the said rear base plate is located, said at least one ring having a forward radially extending surface and said at least one additional ring having a rearward radially extending surface extending
- 15 parallel with and opposed from said forward radially extending surface of said at least one ring; a second plurality of food conveying paddles spanning the opposed radial surfaces of the at least one ring and the at least one additional ring, said second plurality of paddles located in circumferentially spaced, generally radially oriented relationship relative to the at least one ring and the at least one additional ring so that radially outer generally axially extending edges of the second plurality of paddles are located adjacent the effective circumferences of the at least one ring and the at least one additional ring, each paddle of said second plurality having radially inner axially extending edges and each paddle of said second plurality terminating at

an end thereof located respectively at a radially extending surface of the at least one ring and the at least one additional ring, each of said second plurality of paddles being oriented to extend at an angle relative to a radius of the at least one ring and the at least one additional ring such that the radially inner axially extending edge of each of
5 said second plurality of paddles is located in leading relationship relative to the radially outer axially extending edge of the respective paddle with respect to an intended direction of rotation of the impeller; wherein the improvement further comprises:

- each end of a respective paddle of said second plurality that is located
10 adjacent the said at least one ring being located at least in partially trailing relationship relative to the end of the paddle of said second plurality that is located adjacent the at least one additional ring with respect to an intended direction of rotation of the impeller;
whereby elongated food products carried by the impeller during operation
15 thereof and located between said rings are caused to be generally aligned axially along the paddles of said second plurality and urged so that one end of the product is located against the said at least one ring.

3. The improvement in an impeller as claimed in claim 2, wherein the
20 improvement further comprises:

said paddles of said first and second plurality being located in opposed, aligned relationship on opposite sides of said at least one ring.

4. The improvement in an impeller as claimed in claim 2, wherein the improvement further comprises:

said paddles of said first and second plurality being located in circumferentially offset relationship on opposite sides of said at least one ring.

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